

(19) World Intellectual Property  
Organization  
International Bureau



26 JAN 2005



(43) International Publication Date  
19 February 2004 (19.02.2004)

PCT

(10) International Publication Number  
WO 2004/015360 A1

(51) International Patent Classification<sup>7</sup>: F42B 39/14

(21) International Application Number:  
PCT/GB2003/003398

(22) International Filing Date: 7 August 2003 (07.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0218598.1 12 August 2002 (12.08.2002) GB

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

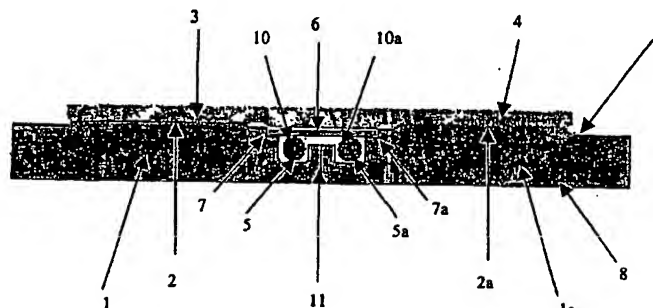
Published:

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: TEMPERATURE RESPONSIVE SAFETY DEVICES FOR MUNITIONS



(57) Abstract: The invention comprises devices for mitigating the explosive reaction of a munition when it is subject to an external thermal hazard threat. In one arrangement there is device which consists of a connector (4) that is at least in part formed from a shape memory alloy, which typically undergoes large dimensional changes when heated or cooled through a particular transition temperature range. The connector in this invention is designed to form a locking engagement, between two components of a munitions casing at one temperature, but when subjected to external heating through the transition temperature range will deform to allow the connector to disengage and thus release the two joined components (1, 1a), allowing any build up of pressure to be released quickly. If the co-operative parts of the connector and components are threaded portions (2, 2a, 3), then the locking engagement will be capable of being dismantled during normal servicing of the munition. In another arrangement the device is an annulus (24) and is located around a munitions casing (22) such that upon heating through its transition temperature range will cause the annulus to contract, thereby rupturing the munitions casing, allowing any build up of pressure to be released quickly.

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